

ABSTRACT OF THE DISCLOSURE

A DSL modem apparatus provided at a transmission side in an upstream performs upstream communication using carrier indexes of the same range as a downstream. During an echo canceller learning period, a transmission signal is outputted to a line, via notch filters that cut the signal at a frequency location of a PILOT signal of the downstream. An echo signal is received via notch filters and a coefficient is set by calculating from the training signal of its own apparatus and the echo signal.